Union Calendar No.

110TH CONGRESS
1ST SESSION

H. R. 362

[Report No. 110-]

To authorize science scholarships for educating mathematics and science teachers, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JANUARY 10, 2007

Mr. GORDON of Tennessee (for himself and Mr. HALL of Texas) introduced the following bill; which was referred to the Committee on Science and Technology

APRIL --, 2007

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in italic]

[For text of introduced bill, see copy of bill as introduced on January 10, 2007]

A BILL

To authorize science scholarships for educating mathematics and science teachers, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. TABLE OF CONTENTS.

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SEC. 2. FINDINGS.

Congress finds the following:

(1) The National Science Foundation has made significant and valuable contributions to the improvement of K–12 and undergraduate science, technology, engineering, and mathematics education throughout its 56 year history.

(2) Under section 3 of the National Science Foundation Act of 1950 (42 U.S.C. 1862), the National Science Foundation is explicitly required to strengthen science, mathematics, and engineering research potential and education programs at all levels.

SEC. 3. DEFINITIONS.

In this Act:

(1) The term "cost of attendance" has the meaning given that term in section 472 of the Higher Education Act of 1965 (20 U.S.C. 1087ll).

(2) The term "Director" means the Director of the National Science Foundation.

(3) The term "institution of higher education" has the meaning given that term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(4) The term "mathematics and science teacher" means a mathematics, science, or technology teacher at the elementary school or secondary school level.

TITLE I—SCIENCE SCHOLARSHIPS

SEC. 101. SHORT TITLE.

This title may be cited as the "10,000 Teachers, 10 Million Minds Science and Math Scholarship Act".

SEC. 102. FINDINGS.

Congress finds the following:

(1) The prosperity the United States enjoys today is due in no small part to investments the Nation has made in research and development over the past 50 years.

(2) Corporate, government, and national scientific and technical leaders have raised concerns that

current trends affecting the science and technology enterprise of the Nation could result in erosion of this past success and jeopardize future prosperity.

(3) The National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine were tasked in a congressional request to recommend actions that the Federal Government could take to enhance the science and technology enterprise so that the United States can successfully compete, prosper, and be secure in the global community of the 21st century.

(4) The Academies' highest priority recommendation in its report, "Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future", is to improve K–12 mathematics and science education, and the Academies' first recommended action item is to institute a major scholarship program to recruit and educate annually 10,000 mathematics and science teachers.

SEC. 103. POLICY OBJECTIVE.

In carrying out the program under section 104, the National Science Foundation shall seek to increase by up to 10,000 per year the number of elementary and secondary mathematics and science teachers in the Nation's schools

having both exemplary subject knowledge and pedagogical skills.

SEC. 104. ROBERT NOYCE TEACHER SCHOLARSHIP PROGRAM.

(a) PROGRAM AMENDMENTS.—Section 10 of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n–1) is amended—

*(1) by inserting "**TEACHER**" after "**NOYCE**" in the section heading;*

(2) in subsection (a)(1)—

(A) by striking "to provide scholarships, stipends, and programming designed";

(B) by inserting "and to provide scholarships and stipends to students participating in the program" after "science teachers"; and

(C) by inserting "Teacher" after "Noyce";

(3) in subsection (a)(3)(A)—

(A) by striking "encourage top college juniors and seniors" and inserting "recruit and prepare undergraduate students"; and

(B) by inserting "qualified as" after "to become";

(4) in subsection (a)(3)(A)(ii)—

(A) by striking "programs to help scholarship recipients" and inserting "academic courses

and early field teaching experiences designed to prepare students participating in the program";

(B) by striking "programs that will result in" and inserting "such preparation as is necessary to meet requirements for"; and

(C) by striking "licensing; and" and inserting "licensing;";

(5) in subsection (a)(3)(A)(iii)—

(A) by striking "scholarship recipients" and inserting "students participating in the program";

(B) by striking "enable the recipients" and inserting "enable the students"; and

(C) by striking "; or" and inserting "; and";

(6) in subsection (a)(3)(A) by inserting at the end the following new clause:

"(iv) providing summer internships for freshman students participating in the program; or";

(7) in subsection (a)(3)(B)—

(A) by striking "encourage" and inserting "recruit and prepare"; and

(B) by inserting "qualified as" after "to become";

(8) by amending clause (ii) of subsection (a)(3)(B) to read as follows:

"(ii) offering academic courses and field teaching experiences designed to prepare stipend recipients to teach in elementary schools and secondary schools, including such preparation as is necessary to meet requirements for teacher certification or licensing; and";

(9) in subsection (a) by inserting at the end the following new paragraph:

"(4) ELIGIBILITY REQUIREMENT.—To be eligible for an award under this section, an institution of higher education (or consortia of such institutions) shall ensure that specific faculty members and staff from the institution's mathematics, science, or engineering departments and specific education faculty are designated to carry out the development and implementation of the program. An institution of higher education may also include teacher leaders to participate in developing the pedagogical content of the program and to supervise students participating in the program in their field teaching experiences. No institution of higher education shall be eligible for an award unless faculty from the institution's mathe-

matics, science, or engineering departments are active participants in the program.";

(10) in subsection (b)(1)(A)—

(A) by striking "scholarship or stipend";

(B) by inserting "and summer internships" after "number of scholarships"; and

(C) by inserting "the type of activities proposed for the recruitment of students to the program," after "intends to award,";

(11) in subsection (b)(1)(B)—

(A) by striking "scholarship or stipend"; and

(B) by striking "; and" and inserting ", which may include a description of any existing programs at the applicant's institution that are targeted to the education of mathematics and science teachers and the number of teachers graduated annually from such programs;";

(12) in subsection (b)(1), by striking subparagraph (C) and inserting the following:

"(C) a description of the academic courses and field teaching experiences required under subsection (a)(3)(A)(ii) and (B)(ii), including—

"(i) a description of the undergraduate program that will enable a student to grad-

uate within 5 years with a major in mathematics, science, or engineering and to obtain teacher certification or licensing;

"(ii) a description of the field teaching experiences proposed; and

"(iii) evidence of agreements between the applicant and the schools or school districts that are identified as the locations at which field teaching experiences will occur;

"(D) a description of the programs required under subsection (a)(3)(A)(iii) and (B)(iii), including activities to assist new teachers in fulfilling their service requirements under this section; and

"(E) an identification of the applicant's mathematics, science, or engineering faculty and its education faculty who will carry out the development and implementation of the program as required under subsection (a)(4).";

(13) in subsection (b)(2)—

(A) by redesignating subparagraphs (B), (C), (D), and (E) as subparagraphs (C), (D), (E) and (F), respectively;

(B) by inserting after subparagraph (A) a new subparagraph as follows:

"(B) the extent to which the applicant's mathematics, science, or engineering faculty and its education faculty have worked or will work collaboratively to design new or revised curricula that recognizes the specialized pedagogy required to teach mathematics, science, and technology effectively in elementary and secondary schools;"; and

(C) by amending subparagraph (F), as so redesignated by subparagraph (A) of this paragraph, to read as follows:

"(F) the ability of the applicant to recruit students who are individuals identified in section 33 or 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a or 1885b).";

(14) in subsection (c)(1)(B), by striking "2 years" and inserting "3 years";

(15) in subsection (c)(3)—

(A) by striking "$7,500" and inserting "$10,000"; and

(B) by striking "2 years of scholarship support" and inserting "3 years of scholarship support, unless the Director establishes a policy by

which part-time students may receive additional years of support";

(16) in subsection (c)(4)—

(A) by striking "6 years" and inserting "8 years";

(B) by inserting ", with a maximum service requirement of 6 years" after "was received"; and

(C) by striking "Service required under this paragraph shall be performed in a high-need local educational agency.";

(17) in subsection (c), by adding at the end a new paragraph as follows:

"(5) EXCEPTION.—The period of service obligation under paragraph (4) is reduced by 1 year for scholarship recipients whose service is performed in a high-need local educational agency.";

(18) in subsection (d)(1), by striking "to receive certification or licensing to teach" and inserting "established under subsection (a)(3)(B)";

(19) in subsection (d)(2), by inserting "and professional achievement" after "academic merit";

(20) in subsection (d)(3), by striking "1 year" and inserting "16 months";

(21) in subsection (d)(4)—

(A) by striking "6 years" and inserting "4 years"; and

(B) by striking "for each year a stipend was received";

(22) in subsection (g)(2)(A)—

(A) by striking "Treasurer of the United States," and inserting "Treasurer of the United States."; and

(B) by striking "multiplied by 2.";

(23) in subsection (i)(3), by inserting "or had a career in" after "is working in";

(24) in subsection (i)—

(A) by striking "and" at the end of paragraph (4);

(B) by striking the period at the end of paragraph (5) and inserting "; and"; and

(C) by adding at the end the following:

"(6) the term 'teacher leader' means a mathematics or science teacher who works to improve the instruction of mathematics or science in kindergarten through grade 12 through—

"(A) participating in the development or revision of science, mathematics, engineering, or technology curricula;

"(B) serving as a mentor to mathematics or science teachers;

"(C) coordinating and assisting teachers in the use of hands-on inquiry materials, equipment, and supplies, and when appropriate, supervising acquisition and repair of such materials;

"(D) providing in-classroom teaching assistance to mathematics or science teachers; and

"(E) providing professional development, for the purposes of training other teacher leaders, to mathematics and science teachers."; and

(25) by adding at the end the following:

"(j) MATHEMATICS AND SCIENCE SCHOLARSHIP GIFT FUND.—In accordance with section 11(f) of the National Science Foundation Act of 1950, the Director is authorized to accept donations from the private sector to support scholarships, stipends, or internships associated with programs under this section.

"(k) ASSESSMENT OF TEACHER SERVICE AND RETENTION.—Not later than 4 years after the date of enactment of this subsection, the Director shall transmit to Congress a report on the effectiveness of the program carried out under this section. The report shall include the proportion

of individuals receiving scholarships or stipends under the program who —

"(1) fulfill their service obligation required under this section in a high-need local educational agency;

"(2) elect to fulfill their service obligation in a high-need local educational agency but fail to complete it, as defined in subsection (g);

"(3) remain in the teaching profession beyond their service obligation; and

"(4) remain in the teaching profession in a high-need local educational agency beyond their service obligation.

"(l) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Director for the Robert Noyce Teacher Scholarship Program—

"(1) $70,000,000 for fiscal year 2008;

"(2) $101,000,000 for fiscal year 2009;

"(3) $133,000,000 for fiscal year 2010;

"(4) $164,000,000 for fiscal year 2011; and

"(5) $196,000,000 for fiscal year 2012.".

(b) CONFORMING AMENDMENT.—Section 8(6) of the National Science Foundation Authorization Act of 2002 is amended—

(1) in the paragraph heading by inserting "TEACHER" after "NOYCE"; and

(2) by inserting "Teacher" after "Noyce".

TITLE II—MATHEMATICS AND SCIENCE EDUCATION IMPROVEMENT

SEC. 201. MATHEMATICS AND SCIENCE EDUCATION PARTNERSHIPS AMENDMENTS.

Section 9 of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n) is amended—

(1) in subsection (a)(2)—

(A) by striking "(A)";

(B) by striking subparagraph (B);

(C) by inserting ", through 1 or more of its departments in science, mathematics, or engineering," after "institution of higher education"; and

(D) by striking "a State educational agency" and inserting "education faculty from the participating institution or institutions of higher education, a State educational agency,";

(2) in subsection (a)(3)(B)—

(A) by inserting "content-specific" before "professional development programs";

(B) by inserting "which are" before "designed"; and

(C) by inserting "and which may include teacher training activities to prepare mathematics and science teachers to teach challenging mathematics, science, and technology college-preparatory courses, including Advanced Placement and International Baccalaureate courses" after "and science teachers";

(3) in subsection (a)(3)(C)—

(A) by inserting "and laboratory experiences" after "technology"; and

(B) by inserting "and laboratory" after "provide technical";

(4) in subsection (a)(3)(I) by inserting "including model induction programs for teachers in their first 2 years of teaching," after "and science,";

(5) in subsection (a)(3)(K) by striking "developing and offering mathematics or science enrichment programs for students, including after-school and summer programs;" and inserting "developing educational programs and materials and conducting mathematics, science, and technology enrichment programs for students, including after-school programs

and summer camps for students described in subsection (b)(2)(G);";

(6) in subsection (a) by inserting at the end the following:

"(8) MASTER'S DEGREE PROGRAMS.—Activities carried out in accordance with paragraph (3)(B) shall include the development and offering of master's degree programs for in-service mathematics and science teachers that will strengthen their subject area knowledge and pedagogical skills, as described in section 203 of the Act enacting this paragraph. Grants provided under this section may be used to develop and implement courses of instruction for the master's degree programs, which may involve online learning, and develop related educational materials.

"(9) MENTORS FOR TEACHERS AND STUDENTS OF CHALLENGING COURSES.—Partnerships carrying out activities to prepare mathematics and science teachers to teach challenging mathematics, science, and technology college-preparatory courses, including Advanced Placement and International Baccalaureate courses, in accordance with paragraph (3)(B) shall encourage companies employing scientists, mathematicians, or engineers to provide mentors to teachers

and students and provide for the coordination of such mentoring activities.

"(10) INVENTIVENESS.—Activities carried out in accordance with paragraph (3)(H) may include the development and dissemination of curriculum tools that will help foster inventiveness and innovation.";

(7) in subsection (b)(2) by redesignating subparagraphs (E) and (F) as subparagraphs (F) and (G), respectively, and inserting after subparagraph (D) the following new subparagraph:

"(E) the extent to which the evaluation described in paragraph (1)(E) will be independent and based on objective measures;";

(8) in subsection (b) by inserting at the end the following:

"(4) MINIMUM AND MAXIMUM GRANT SIZE.—A grant awarded under this section shall be not less than $75,000 or greater than $2,000,000 for any fiscal year.";

(9) in subsection (c)—

(A) by striking paragraph (2);

(B) by redesignating paragraphs (3), (4), and (5) as paragraphs (4), (5), and (6), respectively; and

(C) by inserting after paragraph (1) the following new paragraphs:

"(2) REPORT ON MODEL PROJECTS.—The Director shall determine which completed projects funded through the program under this section should be seen as models to be replicated on a more expansive basis at the State or national levels. Not later than 1 year after the date of enactment of this paragraph, the Director shall transmit a report describing the results of this study to the Committee on Science and Technology and the Committee on Education and Labor of the House of Representatives and to the Committee on Commerce, Science, and Transportation and the Committee on Health, Education, Labor, and Pensions of the Senate.

"(3) REPORT ON EVALUATIONS.—Not later than 4 years after the date of enactment of this paragraph, the Director shall transmit a report summarizing the evaluations required under subsection (b)(1)(E) of grants received under this program and describing any changes to the program recommended as a result of these evaluations to the Committee on Science and Technology and the Committee on Education and Labor of the House of Representatives and to the Committee on Commerce, Science, and Transpor-

tation and the Committee on Health, Education, Labor, and Pensions of the Senate. Such report shall be made widely available to the public."; and

(10) by adding at the end the following new subsection:

"(d) DEFINITIONS.—In this section—

"(1) the term 'mathematics and science teacher' means a mathematics, science, or technology teacher at the elementary school or secondary school level; and

"(2) the term 'science', in the context of elementary and secondary education, includes technology and pre-engineering.".

SEC. 202. TEACHER INSTITUTES.

(a) NATIONAL SCIENCE FOUNDATION INSTITUTES.—

(1) IN GENERAL.—The Director shall establish a grant program to provide for summer or academic year teacher institutes or workshops authorized by section 9(a)(3)(B) of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n(a)(3)(B)) and shall allow grantees under the Teacher Institutes for the 21st Century program to operate 1 to 2 week summer teacher institutes with the goal of reaching the maximum number of in-service mathematics and science teachers, particularly elementary and middle

school teachers, to improve their content knowledge and pedagogical skills.

(2) PREPARATION TO TEACH CHALLENGING COURSES.—The Director shall ensure that activities supported for awards under paragraph (1) include the development and implementation of teacher training activities to prepare mathematics and science teachers to teach challenging mathematics, science, and technology college-preparatory courses, including Advanced Placement and International Baccalaureate courses.

(3) AWARDS.—In awarding grants under this section, the Director shall give priority to applications that propose programs that will attract mathematics and science teachers from local educational agencies that—

(A) are receiving grants under title I of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6301 et seq) as a result of having within their jurisdictions concentrations of children from low income families; and

(B) are experiencing a shortage of highly qualified teachers, as defined in section 9101 of the Elementary and Secondary Education Act of

1965 (20 U.S.C. 7801), in the fields of science, mathematics, or technology.

(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the National Science Foundation for the purposes of this section, $32,000,000 for fiscal year 2008, $35,200,000 for fiscal year 2009, $38,700,000 for fiscal year 2010, $42,600,000 for fiscal year 2011, and $46,800,000 for fiscal year 2012.

(b) LABORATORY SCIENCE TEACHER PROFESSIONAL DEVELOPMENT.—There are authorized to be appropriated to the Secretary of Energy for the Laboratory Science Teacher Professional Development program, $3,000,000 for fiscal year 2008, $8,000,000 for fiscal year 2009, $10,000,000 for fiscal year 2010, $10,000,000 for fiscal year 2011, and $10,000,000 for fiscal year 2012.

SEC. 203. GRADUATE DEGREE PROGRAM.

(a) IN GENERAL.—The Director shall ensure that master's degree programs for in-service mathematics and science teachers that will strengthen their subject area knowledge and pedagogical skills are instituted in accordance with section 9(a)(8) of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n(a)(8)). The degree programs shall be designed for current teachers,

who will enroll as part-time students, and to allow participants to obtain master's degrees within a period of 3 years.

(b) DISTRIBUTION OF AWARDS.—The Director shall, in awarding grants to carry out subsection (a), consider the distribution of awards among institutions of higher education of different sizes and geographic locations.

(c) PROGRAM ACTIVITIES.—Activities supported through master's degree programs established under subsection (a) may include—

(1) development of courses of instruction and related educational materials;

(2) stipends to defray the cost of attendance for students in the degree program; and

(3) acquisition of computer and networking equipment needed for online instruction under the degree program.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the National Science Foundation for the purposes of this section $46,000,000 for fiscal year 2008, $50,600,000 for fiscal year 2009, $55,700,000 for fiscal year 2010, $61,200,000 for fiscal year 2011, and $67,300,000 for fiscal year 2012.

SEC. 204. CURRICULAR MATERIALS.

The Director, in consultation with the Secretary of Education, shall convene a national panel of experts on

mathematics and science education to identify and collect K–12 mathematics, science, and technology teaching materials that have been demonstrated to be effective and to recommend the development of new materials in areas where effective materials do not exist. The Director and Secretary shall develop ways to disseminate effective materials and support efforts to develop new materials, in accordance with the recommendations of the national panel. Recommendations made under this section shall not be considered a mandate of specific K–12 curricula.

SEC. 205. SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS TALENT EXPANSION PROGRAM.

(a) AMENDMENTS.—Section 8(7) of the National Science Foundation Authorization Act of 2002 is amended—

(1) in subparagraph (A) by striking "competitive, merit-based" and all that follows through "in recent years." and inserting "competitive, merit-reviewed multiyear grants for eligible applicants to improve undergraduate education in science, mathematics, engineering, and technology through—

"(i) the creation of programs to increase the number of students studying toward and completing associate's or bachelor's degrees in

science, technology, engineering, and mathematics, particularly in fields that have faced declining enrollment in recent years; and

"(ii) the creation of centers (in this paragraph referred to as 'Centers') to develop undergraduate curriculum, teaching methods for undergraduate courses, and methods to better train professors and teaching assistants who teach undergraduate courses to increase the number of students completing undergraduate courses in science, technology, engineering, and mathematics, including the number of nonmajors, and to improve student academic achievement in those courses.

Grants made under clause (ii) shall be awarded jointly through the Education and Human Resources Directorate and at least 1 research directorate of the Foundation.";

(2) by amending subparagraph (B) to read as follows:

"(B) In selecting projects under subparagraph (A)(i), the Director shall strive to increase the number of students studying toward and completing baccalaureate degrees, concentrations, or certificates in

science, mathematics, engineering, or technology who are—

"(i) individuals identified in section 33 or 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a or 1885b); or

"(ii) graduates of a secondary school that is administered by a local educational agency that is receiving grants under title I of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6301 et seq) as a result of having within its jurisdiction concentrations of children from low income families.";

(3) in subparagraph (C)—

(A) by inserting "(i)" before "The types of";

(B) by redesignating clauses (i) through (vi) as subclauses (I) through (VI), respectively;

(C) by striking "under this paragraph" and inserting "under subparagraph (A)(i)"; and

(D) by adding at the end the following new clause:

"(ii) The types of activities the Foundation may support under subparagraph (A)(ii) include—

"(I) creating model curricula and laboratory programs;

"(II) developing and demonstrating research-based instructional methods and technologies;

"(III) developing methods to train graduate students and faculty to be more effective teachers of undergraduates;

"(IV) conducting programs to disseminate curricula, instructional methods, or training methods to faculty at the grantee institutions and at other institutions;

"(V) conducting assessments of the effectiveness of the Center at accomplishing the goals described in subparagraph (A)(ii); and

"(VI) conducting any other activities the Director determines will accomplish the goals described in subparagraph (A)(ii).";

(4) in subparagraph (D)(i), by striking "under this paragraph" and inserting "under subparagraph (A)(i)";

(5) in subparagraph (D)(ii), by striking "under this paragraph" and inserting "under subparagraph (A)(i)";

(6) after subparagraph (D)(iii), by adding at the end the following new clause:

"(iv) A grant under subparagraph (A)(ii) shall be awarded for 5 years, and the Director may extend such a grant for up to 2 additional 3 year periods.";

(7) in subparagraph (E), by striking "under this paragraph" both places it appears and inserting "under subparagraph (A)(i)";

(8) by redesignating subparagraph (F) as subparagraph (J); and

(9) by inserting after subparagraph (E) the following new subparagraphs:

"(F) Grants awarded under subparagraph (A)(ii) shall be carried out by a department or departments of science, mathematics, or engineering at institutions of higher education (or a consortia thereof), which may partner with education faculty. Applications for awards under subparagraph (A)(ii) shall be submitted to the Director at such time, in such manner, and containing such information as the Director may require. At a minimum, the application shall include—

"(i) a description of the activities to be carried out by the Center;

"(ii) a plan for disseminating programs related to the activities carried out by the Center

to faculty at the grantee institution and at other institutions;

"(iii) an estimate of the number of faculty, graduate students (if any), and undergraduate students who will be affected by the activities carried out by the Center; and

"(iv) a plan for assessing the effectiveness of the Center at accomplishing the goals described in subparagraph (A)(ii).

"(G) In evaluating the applications submitted under subparagraph (F), the Director shall consider, at a minimum—

"(i) the ability of the applicant to effectively carry out the proposed activities, including the dissemination activities described in subparagraph (C)(ii)(IV); and

"(ii) the extent to which the faculty, staff, and administrators of the applicant institution are committed to improving undergraduate science, mathematics, and engineering education.

"(H) In awarding grants under subparagraph (A)(ii), the Director shall endeavor to ensure that a wide variety of science, technology, engineering, and mathematics fields and types of institutions of higher

education, including 2-year colleges and minority-serving institutions, are covered, and that—

"(i) at least 1 Center is housed at a Doctoral/Research University as defined by the Carnegie Foundation for the Advancement of Teaching; and

"(ii) at least 1 Center is focused on improving undergraduate education in an interdisciplinary area.

"(I) The Director shall convene an annual meeting of the awardees under this paragraph to foster collaboration and to disseminate the results of the Centers and the other activities funded under this paragraph.".

(b) REPORT ON DATA COLLECTION.—Not later than 180 days after the date of enactment of this Act, the Director shall transmit to Congress a report on how the Director is determining whether current grant recipients in the Science, Technology, Engineering, and Mathematics Talent Expansion Program are making satisfactory progress as required by section 8(7)(D)(ii) of the National Science Foundation Authorization Act of 2002 and what funding actions have been taken as a result of the Director's determinations.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the National Science

Foundation for the program described in paragraph (7) of section 8 of the National Science Foundation Authorization Act of 2002—

(1) $44,000,000 for fiscal year 2008, of which $4,000,000 shall be for the grants described in subparagraph (A)(ii) of that paragraph;

(2) $55,000,000 for fiscal year 2009, of which $10,000,000 shall be for the grants described in subparagraph (A)(ii) of that paragraph;

(3) $60,000,000 for fiscal year 2010, of which $10,000,000 shall be for the grants described in subparagraph (A)(ii) of that paragraph;

(4) $60,000,000 for fiscal year 2011, of which $10,000,000 shall be for the grants described in subparagraph (A)(ii) of that paragraph; and

(5) $60,000,000 for fiscal year 2012, of which $10,000,000 shall be for the grants described in subparagraph (A)(ii) of that paragraph.

SEC. 206. HIGH-NEED LOCAL EDUCATIONAL AGENCY DEFINITION.

Section 4(8) of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n note) is amended to read as follows:

"(8) HIGH-NEED LOCAL EDUCATIONAL AGENCY.—The term 'high-need local educational agency' means a local educational agency that—

"(A) is receiving grants under title I of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6301 et seq) as a result of having within its jurisdiction concentrations of children from low income families; and

"(B) is experiencing a shortage of highly qualified teachers, as defined in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801), in the fields of science, mathematics, or engineering.".

SEC. 207. TEACHER LEADERS.

The National Science Foundation Authorization Act of 2002 is amended—

(1) in section 4(11)—

(A) by striking "MASTER TEACHER" and inserting "TEACHER LEADER";

(B) by striking "master teacher" and inserting "teacher leader"; and

(C) in subparagraph (E), by striking "master teachers" and inserting "teacher leaders"; and

(2) in section 9—

(A) in subsection (a)(3)(E), by striking "master teachers" and inserting "teacher leaders"; and

(B) in subsection (a)(4)—

(i) by striking "MASTER TEACHERS" and inserting "TEACHER LEADERS"; and

(ii) by striking "master teachers" each place it appears and inserting "teacher leaders".

SEC. 208. LABORATORY SCIENCE PILOT PROGRAM.

(a) FINDINGS.—The Congress finds the following:

(1) To remain competitive in science and technology in the global economy, the United States must increase the number of students graduating from high school prepared to pursue postsecondary education in science, technology, engineering, and mathematics.

(2) There is broad agreement in the scientific community that learning science requires direct involvement by students in scientific inquiry and that laboratory experience is so integral to the nature of science that it must be included in every science program for every science student.

(3) In America's Lab Report, the National Research Council concluded that the current quality of laboratory experiences is poor for most students and

that educators and researchers do not agree on how to define high school science laboratories or on their purpose, hampering the accumulation of research on how to improve labs.

(4) The National Research Council found that schools with higher concentrations of non-Asian minorities and schools with higher concentrations of poor students are less likely to have adequate laboratory facilities than other schools.

(5) The Government Accountability Office reported that 49.1 percent of schools where the minority student population is greater than 50.5 percent reported not meeting functional requirements for laboratory science well or at all.

(6) 40 percent of those college students who left the science fields reported some problems related to high school science preparation, including lack of laboratory experience and no introduction to theoretical or to analytical modes of thought.

(7) It is in the national interest for the Federal Government to invest in research and demonstration projects to improve the teaching of laboratory science in the Nation's high schools.

(b) GRANT PROGRAM.—Section 8(8) of the National Science Foundation Authorization Act of 2002 is amended—

(1) by redesignating subparagraphs (A) through (F) as clauses (i) through (vi), respectively;

(2) by inserting "(A)" before "A program of competitive"; and

(3) by inserting at the end the following new subparagraphs:

"(B) In accordance with subparagraph (A)(v), the Director shall establish a research pilot program designated as 'Partnerships for Access to Laboratory Science' to award grants to partnerships to improve laboratories and provide instrumentation as part of a comprehensive program to enhance the quality of mathematics, science, engineering, and technology instruction at the secondary school level. Grants under this subparagraph may be used for—

"(i) purchase, rental, or leasing of equipment, instrumentation, and other scientific educational materials;

"(ii) maintenance, renovation, and improvement of laboratory facilities;

"(iii) development of instructional programs designed to integrate the laboratory expe-

rience with classroom instruction and to be consistent with State mathematics and science academic achievement standards;

"(iv) training in laboratory safety for school personnel;

"(v) design and implementation of hands-on laboratory experiences to encourage the interest of individuals identified in section 33 or 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a or 1885b) in mathematics, science, engineering, and technology and help prepare such individuals to pursue postsecondary studies in these fields; and

"(vi) assessment of the activities funded under this subparagraph.

"(C) Grants may be made under subparagraph (B) only to a partnership—

"(i) for a project that includes significant teacher training and professional development components; or

"(ii) that establishes that appropriate teacher training and professional development is being addressed, or has been addressed, through other means.

"(D) Grants awarded under subparagraph (B) shall be to a partnership that—

"(i) includes an institution of higher education or a community college;

"(ii) includes a high-need local educational agency;

"(iii) includes a business or eligible nonprofit organization; and

"(iv) may include a State educational agency, other public agency, National Laboratory, or community-based organization.

"(E) The Federal share of the cost of activities carried out using amounts from a grant under subparagraph (B) shall not exceed 50 percent.

"(F) The Director shall require grant recipients to submit a report to the Director on the results of the project supported by the grant.".

(c) REPORT.—The Director shall evaluate the effectiveness of activities carried out under the research pilot projects funded by the grant program established pursuant to the amendment made by subsection (b) in improving student performance in mathematics, science, engineering, and technology. A report documenting the results of that evaluation shall be submitted to the Committee on Science and Technology of the House of Representatives and the Com-

mittees on Commerce, Science, and Transportation and on Health, Education, Labor, and Pensions of the Senate not later than 5 years after the date of enactment of this Act. The report shall identify best practices and materials developed and demonstrated by grant awardees.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the National Science Foundation to carry out this section and the amendments made by this section $5,000,000 for fiscal year 2008, and such sums as may be necessary for each of the 3 succeeding fiscal years.

SEC. 209. STUDY ON LABORATORY EQUIPMENT DONATIONS FOR SCHOOLS.

Not later than 2 years after the date of enactment of this Act, the Director shall transmit a report to the Congress examining the extent to which institutions of higher education are donating used laboratory equipment to elementary and secondary schools. The Director, in consultation with the Secretary of Education, shall survey institutions of higher education to determine—

(1) how often, how much, and what type of equipment is donated;

(2) what criteria or guidelines the institutions are using to determine what types of equipment can

be donated, what condition the equipment should be in, and which schools receive the equipment;

(3) whether the institutions provide any support to, or follow-up with the schools; and

(4) how appropriate donations can be encouraged.